

POPULATION DYNAMICS OF WHITE SHRIMP AND BROWN SHRIMP IN VERMILION BAY, LA.

Investigations of seasonal fluctuations in the abundance of postlarval shrimp in Vermilion Bay have been underway since February 1963. Information collected to date indicates a possibility for predicting the commercial abundance of white shrimp from densities of postlarvae. Attempts to relate the abundance of postlarval brown shrimp to later commercial catches have been less successful. The reverse of this situation has been found at Galveston, where predictions of brown shrimp abundance appear to be more feasible than those for white shrimp.

New short-term studies during the summer when classes are not in session were added to the schedule of contract work. Laboratory experiments were undertaken to determine the glycogen and lactic-acid content of shrimp muscle tissue, and to develop antisera that may be used to distinguish white and brown shrimp at the postlarval stage. Shrimp production in a small portion of Vermilion Bay is being studied by following changes in the size composition of brown and white shrimp.

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